

### Vikas Tuteja

**Chief Operating Officer** 

November 2020

## **About Heliogen**

# 24/7 low-carbon energy from the sun

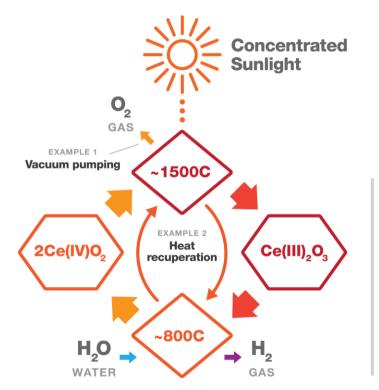
- High concentration ratios through closed loop control
- Generation of carbon-free, ultra-high temperature heat
- Receivers and storage to match
- Integrated with industrial processes

Heliogen's facility in Lancaster, California





## Solar Thermochemical Hydrogen



REDUCTION

$$2Ce(IV)O_2 + Ce(III)_2O_3 + \frac{1}{2}O_2$$

OXIDATION

**NET REACTION** 



## Insights + Recommendations

### **Advancing Industry**

- Insist on a systems examination first using a common set of assumptions
- Identify individual areas of risk
- Fund research across all areas of risk, not just the "exciting" ones
- Expand research into thermoelectrochemical cycles



# Thank You

### Vikas Tuteja

**Chief Operating Officer** 

vikas@heliogen.com